

Troubleshooting

Troubleshooting Flowchart — Compressor (cont'd)

<PGM-FI, PGM-CARB Engine>

(From page 15-57)

Turn the ignition switch OFF and reconnect 4-P connector to the compressor clutch relay.

Turn the ignition switch ON, and connect a jumper wire between RED/BLU terminal and body ground.

Does the compressor clutch engage?

NO

Replace the compressor clutch relay.

YES

Turn the ignition switch OFF and disconnect PGM-FI, PGM-CARB ECU connector and connect the PGM-FI ECU test harness.

Turn the ignition switch ON and connect a jumper wire between A15 (PGM-FI) or A19 (PGM-CARB) terminal and body ground.

Does the compressor clutch engage?

NO

Repair open in RED/BLU wire between the compressor clutch relay and ECU.

YES

Disconnect a jumper wire and connect a jumper wire between B5 (PGM-FI) or D6 (PGM-CARB) terminal and body ground.

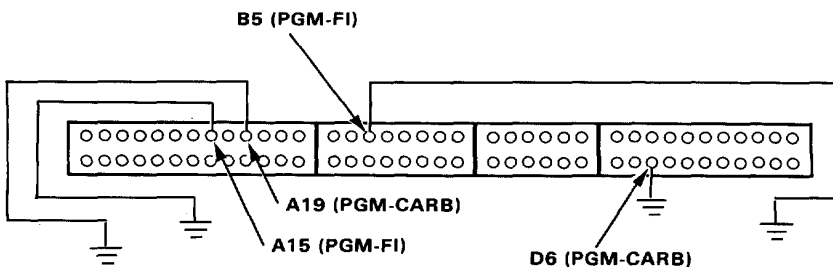
Does the compressor clutch engage?

NO

Repair open in BLU/BLK wire between A/C pressure switch and ECU.

YES

Substitute a Known- good ECU and recheck. If prescribed voltage is now available, replace the original ECU.





<Carbureted Engine>

(From page 15-57)

Turn the ignition switch OFF and reconnect 4-P connector to the compressor clutch relay.

Turn the ignition switch ON, and connect a jumper wire between RED/BLU terminal and body ground.

Does the compressor clutch engage?

NO

Replace the compressor clutch relay.

YES

Disconnect 6-P connector from the delay control unit.

Connect a jumper wire between RED/BLU terminal and body ground.

Does the compressor clutch engage?

NO

Repair open in RED/BLU wire between compressor relay and delay control unit.

YES

Measure voltage between the BLK/YEL terminal (+) and body ground (-).

Is there battery voltage?

NO

Repair open in BLK/YEL wire between the No.7 (7.5 A) fuse and delay control unit.

YES

Check the continuity between BLK terminal and body ground.

Is there continuity?

NO

Repair open in BLK wire between delay control unit and body ground or poor ground.

YES

Check the continuity BLU/BLK terminal between delay control unit and body ground. Then A/C, heater fan switches ON.

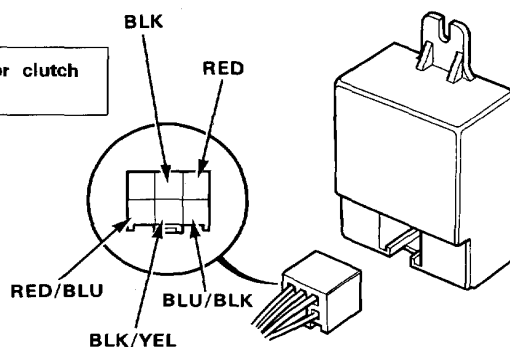
Is there continuity?

NO

Repair open in BLU/BLK wire between delay control unit and body ground.

YES

Faulty delay control unit.

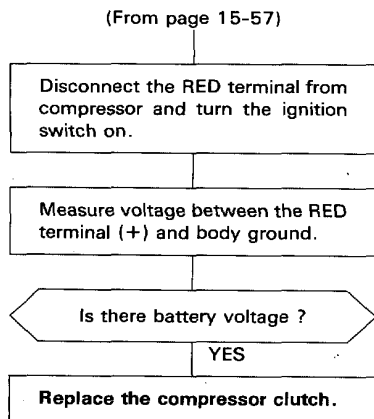


View from wire side

(cont'd)

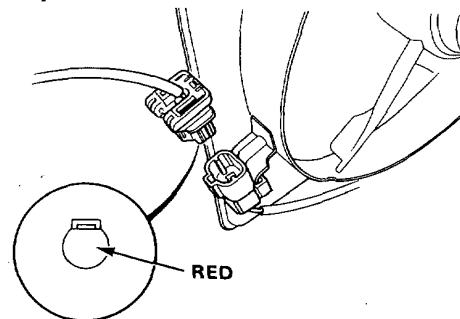
Troubleshooting

Troubleshooting Flowchart — Compressor (cont'd)



NO

Repair open in RED wire between the compressor clutch relay and compressor clutch connector.



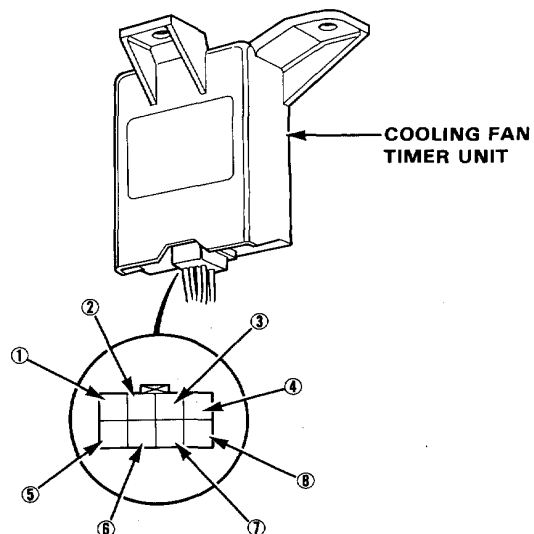
View from terminal side



Cooling Fan Timer Unit Input Tests

NOTE:

Perform the following tests with the cooling fan timer connected and the ignition switch ON.
Correct any abnormality before continuing.



WIRE POSITION	TEST CONDITION	DESIRED RESULTS	CORRECTIVE ACTION IF DESIRED RESULTS ARE NOT OBTAINED
④BLK	Check for continuity to body ground.	Should have continuity.	Repair open to body ground.
⑥WHT	Check for battery voltage	Should have battery voltage.	Check No.29 fuse, if OK repair open in WHT wire.
⑦BLK/YEL	Check for battery voltage (Ignition switch-ON)		Check No.2 fuse, if OK repair open in BLK/YEL wire.
②YEL/BLK	Check for battery voltage (Ignition switch-ON)		Check No.8 fuse, if OK repair open in YEL/BLK wire.
①YEL/WHT	Check for battery voltage.		Replace cooling fan timer unit.
③YEL	Check for battery voltage.		Replace cooling fan timer unit.
⑧BLU	Connect to body ground.	Condenser fan and cooling fan should come on.	Check for open in BLU between cooling fan timer and condenser fan relay or cooling fan relay. If OK, check for open YEL/WHT between cooling fan timer and condenser fan relay or YEL between cooling fan timer and cooling fan relay. If OK, test condenser fan relay or cooling fan relay.
⑤WHT/GRN	Check for voltage.	Approx 11V (water-temperature below 108 °C)	Faulty water temp switch, short to body ground or faulty cooling fan timer unit.

Service Tips

▲WARNING When handling refrigerant (R-12):

- Always wear eye protection.
- Do not let refrigerant get on your skin or in your eyes; if it does:
 - Do not rub your eyes or skin.
 - Splash large quantities of cool water in your eyes or on your skin.
 - Rush to a physician or hospital for immediate treatment. Do not attempt to treat it yourself.
- Keep refrigerant containers (cans of R-12) stored below 40 °C (100 °F).
- Do not handle or discharge refrigerant in an enclosed area near an open flame; it may ignite and produce a poisonous gas.

CAUTION:

1. Always disconnect the negative cable from the battery whenever replacing air conditioner parts.
2. Keep moisture and dust out of the system. When disconnecting any lines, plug or cap the fittings immediately; don't remove the caps or plugs until just before the lines are reconnected.
3. Before connecting any hose or line, apply a few drops of refrigerant oil to the seat of the O-ring or flare nut.
4. When tightening or loosening a fitting, use a second wrench to support the matching fitting.
5. When discharging the system, don't let refrigerant escape too fast; it will draw the compressor oil out of the system.

6. Add refrigerant oil after replacing the following parts;

Condenser10 cc (1/3 fl oz)

Evaporator25 cc (5/6 fl oz)

Line or hose10 cc (1/3 fl oz)

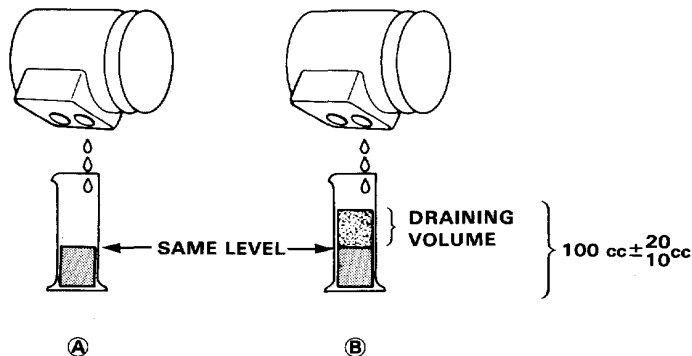
Receiver10 cc (1/3 fl oz)

CompressorOn compressor replacement, subtract the volume of oil drained from the removed compressor from 100 cc (3 1/3 fl oz), and drain the calculated volume of oil from the new compressor:

$100 \text{ cc (3 1/3 fl oz)} - \text{Volume of removed compressor} = \text{Draining volume.}$

OLD COMPRESSOR

NEW COMPRESSOR



7. Before charging the system, it is necessary to evacuate the system.
8.
 - Charge the system with the correct quantity of refrigerant exactly.
 - Avoid discharging with the refrigerant unnecessarily.
 - When using an auto gas charger, operate it according to the manufacturer's instructions.
9. Check that the cooling fan motor runs when turning the A/C switch and fan switch ON.